

REMARKS

Claims 1-46 remain present in this application. In the present Office action: claims 1, 5, 6, and 29 were rejected under 35 U.S.C. 102(a) as being anticipated by Applicant's admitted prior art ("AAPA"); claims 2 and 30 were rejected under 35 U.S.C. 103(a) as being unpatentable over the AAPA in view of U.S. Patent No. 7,016,654 ("Bugeja"); claims 3 and 31 were rejected under 35 U.S.C. 103(a) as being unpatentable over the AAPA in view of U.S. Patent Application Publication No. 2002/0177423 ("Cowley"); claims 4 and 32 were rejected under 35 U.S.C. 103(a) as being unpatentable over the AAPA in view of U.S. Patent No. 6,177,964 ("Birleson"); claims 18, 20, 38, and 40 were rejected under 35 U.S.C. 103(a) as being unpatentable over the AAPA in view of U.S. Patent No. 4,361,906 ("Sakamoto") and U.S. Patent Application Publication No. 2005/0239499 ("Oosawa"); claims 19 and 39 were rejected under 35 U.S.C. 103(a) as being unpatentable over the AAPA in view of Sakamoto, Oosawa, and U.S. Patent No. 6,711,149 ("Yano"); claims 21, 25, and 41 were rejected under 35 U.S.C. 103(a) as being unpatentable over the AAPA in view of Sakamoto; claim 42 was rejected under 35 U.S.C. 103(a) as being unpatentable over the AAPA in view of Sakamoto and PCT Publication No. WO 97/06604 ("Hedstrom"); claim 23 was rejected under 35 U.S.C. 103(a) as being unpatentable over the AAPA in view of Hedstrom; claims 34-36 were rejected under 35 U.S.C. 103(a) as being unpatentable over the AAPA in view of U.S. Application Publication No. 2003/0083033 ("Staszewski"); claims 13, 22, and 37 were rejected under 35 U.S.C. 103(a) as being unpatentable over the AAPA in view of U.S. Patent No. 5,251,218 ("Stone"); claim 24 was rejected under 35 U.S.C. 103(a) as being unpatentable over the AAPA in view of Hedstrom and Birleson; claim 43 was rejected under 35 U.S.C. 103(a) as being unpatentable over the AAPA in view of U.S. Patent Application Publication No. 2001/0041532 ("Tomasz") and Sakamoto; claim 44 was rejected under 35 U.S.C. 103(a) as being unpatentable over the AAPA in view of Sakamoto and Staszewski; claims 7, 27, 28, 33, 45, and 46 were rejected under 35 U.S.C. 103(a) as being unpatentable over the AAPA in view of Tomasz; and claims 8-12, 14-17, and 26 were objected to as being dependent upon a rejected base claim, but were indicated to be allowable if rewritten in independent form.

Applicant has amended independent claim 1 to explicitly recite what Applicant believes was already implicit, i.e., that Applicant's claimed mixer is configured to receive a radio

frequency signal (at a first input terminal) and a digital local oscillator signal (at a second input terminal) and provide an analog output signal (at an output terminal). At the outset, Applicant respectfully submits that Applicant's Fig. 2 (i.e., the AAPA) does not teach or suggest a mixer that is configured to receive a radio frequency signal and a digital local oscillator signal and provide an analog output signal. As is shown in Applicant's Fig. 2 (and described in Applicant's specification in paragraph [0006]), mixer 86 receives a radio frequency signal (f_{IN}) and an analog local oscillator signal (f_{LO}). That is, while DDFS 82 provides a digital local oscillator signal (LO), a digital-to-analog converter (DAC) 84 is provided to convert the digital local oscillator signal (LO) to the analog local oscillator signal (f_{LO}). For at least this reason, Applicant's independent claims 1 and 29 are not anticipated by the AAPA. Applicant respectfully submits that independent claim 29, while of different scope, is also allowable for at least the reason that independent claim 1 is allowable. Additionally, Applicant submits that claims 2-28 and 30-46 are also allowable for at least the reason that the claims depend upon an allowable claim.

CONCLUSION

Therefore, Applicant submits that the application is now in condition for allowance. If the Examiner is unable to issue a Notice of Allowance at the next communication and believes that a telephone interview would be appropriate, Applicant respectfully requests the Examiner to contact the undersigned attorney at the phone number listed below.

Respectfully submitted,

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Date

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